## SPECIFICATIONS

| | |
|---|---|
| **System** | |
| **Processor** | Intel® Atom™ Z530, 1.6GHz |
| **Memory (RAM)** | 2GB DDR2 533MHZ |
| **Storage** | 2GB to 16GB Flash or 32GB/64GB SSD |
| **Operating Systems** | Microsoft® Windows® Embedded Standard 7, Windows® 7 Professional, Windows® XP Embedded, Windows® XP Pro for Embedded Systems, or Linux |
| **Display** | 10.4" LED-backlight screen with resistive touch; sunlight-readable option |
| **Display Resolution** | 1024 x 768 (XGA) |
| **Network Interface** | Wi-Fi 802.11a/b/g/n, Bluetooth 2.1 with EDR |
| **Control Switch and Buttons** | 1 power button, 7 front buttons and 1 trigger button |
| **Indicator** | 1 power/ battery status LED and 1 WLAN active LED |
| **Speaker** | Built-in speaker |
| **Input/Output Ports** | 1 DC-in Jack; 2 USB 2.0 port;<br>1 Headphone-out Jack; 1 Microphone-in Jack |
| **Security** | WPA-Personal, WPA2-Personal, WPA-Enterprise, WPA2-Enterprise, AES-CCMP 128-bit, WEP 128-bit and 64-bit; 802.1X: EAP-SIM, LEAP, PEAP, TKIP, EAP-FAST, EAPTLS, EAP-TTLS |
| **Power** | |
| **AC/DC Adapter** | **Input:** 100 – 240V AC; **Output:** 12V DC, 3.5A |
| **Battery Pack** | Internal 7.4V, 2200mAh or 7.4V, 3760mAh/<br>**Optional:** External 7.4V, 3760mAh or 7.2V, 3900mAh |
| **Mechanical** | |
| **Enclosure** | ABS + PC plastics and magnesium-aluminum alloy |
| **Stylus** | Non-electronic tip |
| **Protective Bumpers** | Rubber side-grips with handstrap |
| **Dimensions** (H x W x D) | 8.3 x 10.3 x 0.8 in/ 210 x 261 x 18 mm |
| **Weight** | 2.05 lbs/ 0.93 kg |
| **Environmental** | |
| **Regulatory** | FCC Class B, CE, C-Tick, RoHS compliant |
| **Temperature** | **Operation:** 0°C - 40°C; **Storage:** -20°C - 60°C |
| **Humidity** | 0% - 90% non-condensing |

* Specifications subject to change without notice.

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BOG011712DT312ENG



DT Research

# Mobile POS Tablet

# DT312

## BASIC OPERATION GUIDE

## ENGLISH

### INTRODUCTION

Thank you for acquiring the latest addition to DT Research's line of tablet devices— the DT312. Featuring a slim yet robust enclosure, the two-pound DT312 with 10.4" TFT display is powered by the Intel® Atom™ processor, offering optimal combinations of performance and power savings. An external battery expansion option provides approximately 3-4 hours of additional battery operation for up to six hours of mobile usage.

The DT312 is available in Microsoft® Windows® Embedded Standard 7, Windows® 7 Professional, Windows® XP Embedded, Windows® XP Pro for Embedded Systems or Linux operating systems. Each software operating system features web browser, client/server computing software, media player, accessories, and applications support.

### PACKAGE CONTENTS

- One DT312 with Internal Battery Pack (2200mAh), Stylus, Grips and Screen Cover
- AC-DC Power Adapter with Power Cord
- Basic Operation Guide

**Major options, depending on configuration:**

| | |
|---|---|
| • Desktop Charging Cradle with DC-in Power Jack and Ethernet, USB and optional VGA Ports | • External Battery Pack |
| • Internal High Capacity Battery (3760mAh) | • External Battery Charger Kit |

* If your DT312 contains MSR, camera or scanner module, please refer to the POS module operation guide for detailed operation.

## The DT312 (with Windows XP)

## Input/ Output Ports

| | |
|---|---|
| A | DC Power Input |
| B | Headphone Jack |
| C | Microphone Jack |
| D | USB Ports (2) |

## Button Functions (with Windows XP Operating System)

| BUTTON | ACTION |
|---|---|
| 1 2 3 | Programmable |
| 4 | Programmable, launch soft (on-screen) keyboard (default) |
| 5 | Launch SAS (Secure Attention Sequence)<br>Generate Ctrl+Alt+Del keys to invoke the security windows defined under Windows XP |
| 6 | Programmable,<br>Change display orientation (portrait/ landscape) (default) |
| 7 | Programmable, system utility menu (default) |
| 8 | Programmable,<br>As scanner trigger when equipped with the scanner module |
| 9 | Push/release typically enters Standby mode, or Push/release exits Standby mode or restarts device (software dependent)<br>Push and hold (over 4 seconds) invokes hardware shutdown |



## Power/Battery LED Status:

- Blue indicates the battery is 25% to 100% charged
- Blinking blue indicates the battery is charging
- Orange indicates that the battery is between 11% to 25%
- Blinking Orange indicates that the battery is below 10%

## Precautions

- Always exercise care when operating and handling the DT312.
- Do NOT apply excessive pressure to the display screen.
- We recommend using the Stylus provided to keep the screen clean.
- Avoid prolonged exposure of the display panel to any strong heat source. Wherever possible, the DT312 should face away from direct light to reduce glare.
- If the AC-DC power adapter is used to recharge or power the device, do NOT use any AC-DC adapter other than the one provided with the device or acquired from the manufacturer or its partners.
- In the unlikely event that smoke, abnormal noise, or strange odor is present, immediately power off the DT312 and disconnect all power sources. Report the problem to your device provider immediately.
- Never attempt to disassemble the DT312, as this will void the warranty.

## THE DT312

## Basic Features

The DT312 wireless tablet integrates a bright and responsive touch display, two USB ports, and embedded networking elements such as wireless LAN and Bluetooth or optional 3G. The primary device is complemented by a suite of accessories, including battery expansion, charging cradles, and battery charger kit, for a comprehensive user experience.

A DT312 typically integrates an 802.11a/b/g/n wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your DT312 does not come with such a network adapter, please consult your device provider to establish the desired network connectivity.

## OPERATION

### Internal Battery Switch

To prevent battery drain during shipping and extended storage, the internal battery may be disconnected off. To connect the internal battery, push the battery button switch (on the back panel) to the “up” position (see page 2 for photo). The internal battery pack has to be connected for it to operate, be charged, and for the optional external battery pack to function.

### Powering ON and OFF

To activate the DT312, push and quickly release the Power Button. The display will come on in a few seconds. To put the DT312 in Standby mode, push and quickly release the Power Button. To turn the DT312 off for extended storage, power off the device safely using any software function that “shuts down computer” provided in the software operating system.

NOTE: The battery packs shipped with your device may be low in power—please use the AC-DC adapter with the DT312 when setting up the device for the first time to fully charge the internal battery pack. You may charge the external battery pack with it attached to the DT312, or with the optional external battery charger kit.

NOTE: When the battery pack(s) is (are) charging, the blue-colored Battery LED should blink slowly. If plugging in the AC-DC adapter does not trigger this blinking activity and the LED stays dark, the battery pack(s) may have been drained substantially. Try unplugging/ replugging the AC-DC adapter to the DT312 a few times to activate the charging process.

NOTE: To conserve power, use (push and quick release) the Power Button to put the device in “Standby” mode while not in use. Pushing briefly on the same button will wake up the system within seconds.

NOTE: Avoid using the Power Button (“hold 4+ seconds” feature) to turn off the device—this form of hardware shutdown is intended to be a means of recovery from device lockups, and not as normal operation.

### Start Up

If the power up (from Standby or otherwise) is successful, the appropriate interface will be displayed after a launch sequence of several seconds. The wireless LAN connection may take 10-15 seconds to be established.

### Configuring the DT312

The device may be configured using the utilities and methods dictated by the software operating system. The DT312 should be configurable for various properties such as user profiles, network features, and several system elements.

### Calibration

The touch display for the DT312 is calibrated before shipping. In the event that the calibration has been modified or is unsatisfactory, the respective calibration routines (e.g., PenMount (PM) for Windows XP) to calibrate the touch interface may be used. Such applications are typically executed through touch input via Stylus or through mouse click via a USB mouse.

### Wireless Networking

#### Wireless LAN

The DT312 is often delivered with an embedded (user-inaccessible) 802.11a/b/g/n WLAN adapter equipped with a hidden custom antenna.

- Through the support of typical WLAN adapters, the DT312 should be able to detect all 802.11 access points in the vicinity for you to select the access point of your choice for connection.
- The SSID and WEP/WPA/WPA2 (if enabled) parameters on the DT312 and the access points have to match. The SSID is case-sensitive and it is recommended that you enable WEP/WPA/WPA2 encryption (or advanced alternatives) for secure access.
- When WEP/WPA/WPA2 is enabled, you may need to consult your network administrator or your networking equipment literature to properly configure associated settings such as Authentication mode, etc.
- Refer to the access point operating manuals for setting up the 802.11 access points.

### Bluetooth

The DT312 features a built-in Bluetooth adapter that operates on the Microsoft Windows Bluetooth protocol. The Bluetooth configuration application is invoked from the System Tray or from the Control Panel for Windows XP.  Follow the instructions and options provided within the application to configure and invoke Bluetooth connectivity with the corresponding peripherals.

NOTE: Bluetooth devices or accessories that are not compatible with the Microsoft Windows Bluetooth protocol may not work with the DT312.

### Button Management

Where supported by software, many of the hard buttons on the DT312 are programmable to perform a function of the user's choice. The exception is the Power Button and the SAS Button. To activate the button re-assignment application, invoke the Button Manager application, e.g., in Windows XP Embedded .

### Brightness Control

Where supported by device firmware and software, a hard button may be engaged to manipulate the display brightness. Press the System Menu button (Button 7) on the front of the DT312. The System screen will display a Brightness control section with up and down arrows that can be activated with the stylus.

### Battery and Power Management

The DT312 is equipped with an internal 2200mAh Li-Ion battery pack that is capable of supporting approximately 1.5–2 hours of continuous operation. With the optional internal 3760mAh battery and an external battery pack that clips (hot-pluggable) onto the back of the device, the maximum period of continuous operation will be approximately 3–4 hours. The period between battery recharges can be significantly lengthened by putting the device into Standby mode through the Power Button (see Buttons Function Table) whenever the device is not in use. Depending on the operating software, the DT312 may also be configured to enter various power-saving modes via the Power Button or through timed entry.

### Desktop Cradle

The DT312 is complemented by an optional Desktop Cradle for support, pass-through charging, and connection to a range of USB peripherals, including keyboard and mouse. The Cradle offers the following interfaces: a DC-in port for the AC-DC adapter, an Ethernet port, a VGA port (optional) and USB ports. Always seat the DT312 securely onto the cradle. The cradle must be powered by the AC-DC adapter for the Ethernet and USB ports to function. The battery packs on the DT312 may be recharged by connecting the AC-DC adapter directly to the DC-in port on the DT312 or through the DC-in port on the Desktop Cradle while the DT312 is docked to the Cradle.

## USING THE DT312

### Memory configuration

The DT312 is available with 2GB memory configuration. Storage options currently range from: 2GB to 16GB flash memory or 32GB to 64GB SSD.

### Peripherals Support

Through its USB ports, the DT312 supports a wide range of USB-based peripherals. These peripherals are applicable for software installation, applications storage, data storage, and system software recovery and updates. The DT312 is also compatible with custom mountable cradle options. These securable and mountable cradles provide an interface to VESA mounts and arms, and to ports that may include USB, Ethernet, and pass-through power.

### Remote Management

Depending on software configuration, the DT312 can be centrally managed for asset monitoring and for software control. Please consult your device provider.

### Federal Communication Commission Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.